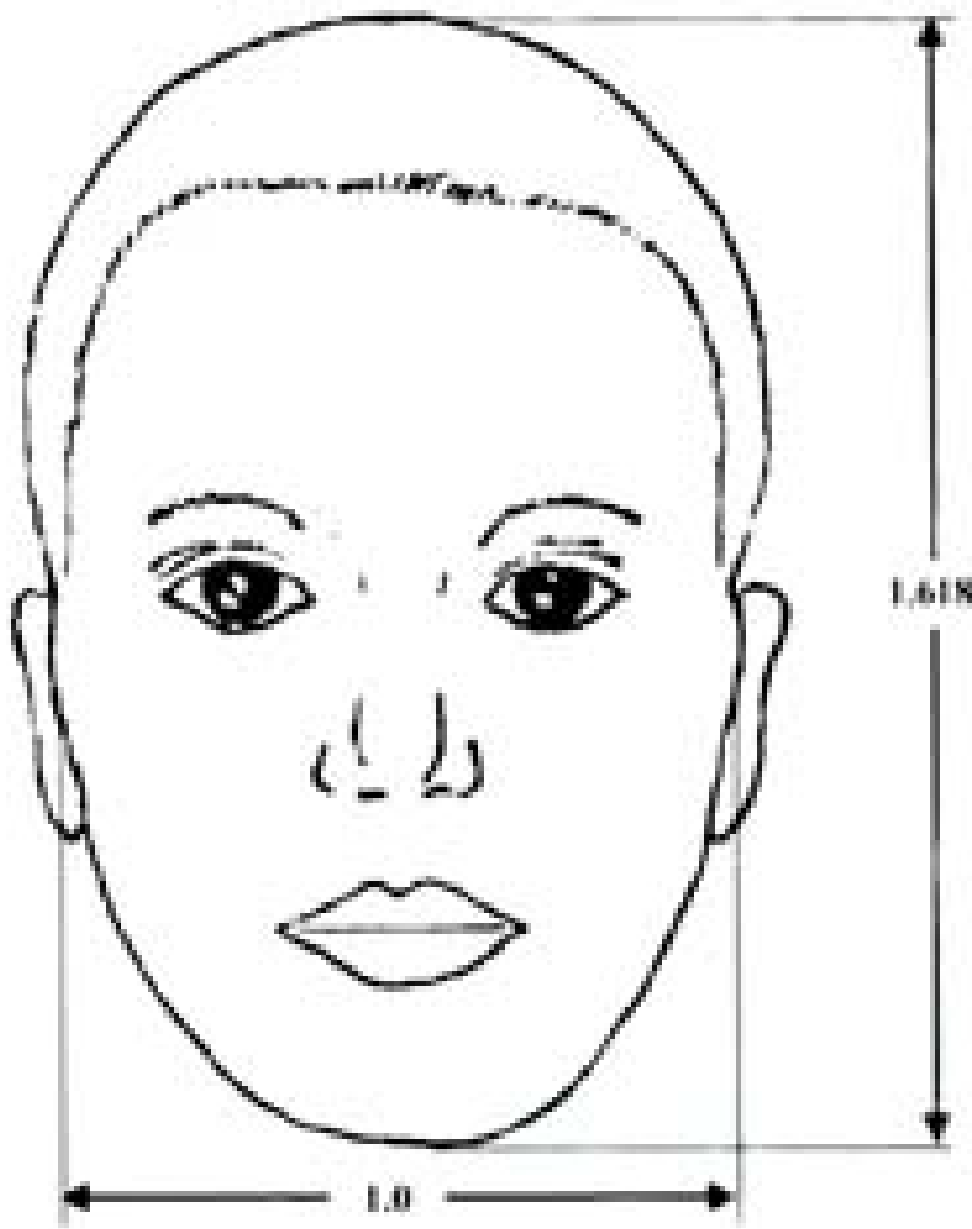


Impact of occlusion on:

Facial form

Long Face Syndrome



**Natural beauty has
a divine proportion
ratio of 1.618 / 1.0**

Divine Proportion of the face

Yosh Jefferson. Skeletal Types:
Key to unraveling the mystery of
facial beauty and its biologic
significance. JGO 1996;7(2):7-25.

Formula to determine Golden Proportion or Divine Proportion of the Face:

$$\text{Height (mm)} / \text{width (mm)} = \text{Ratio}$$

Example:

If height of face is 161.8 mm and

width of face is 100 mm,

ratio is $161.8 / 100 = 1.618$

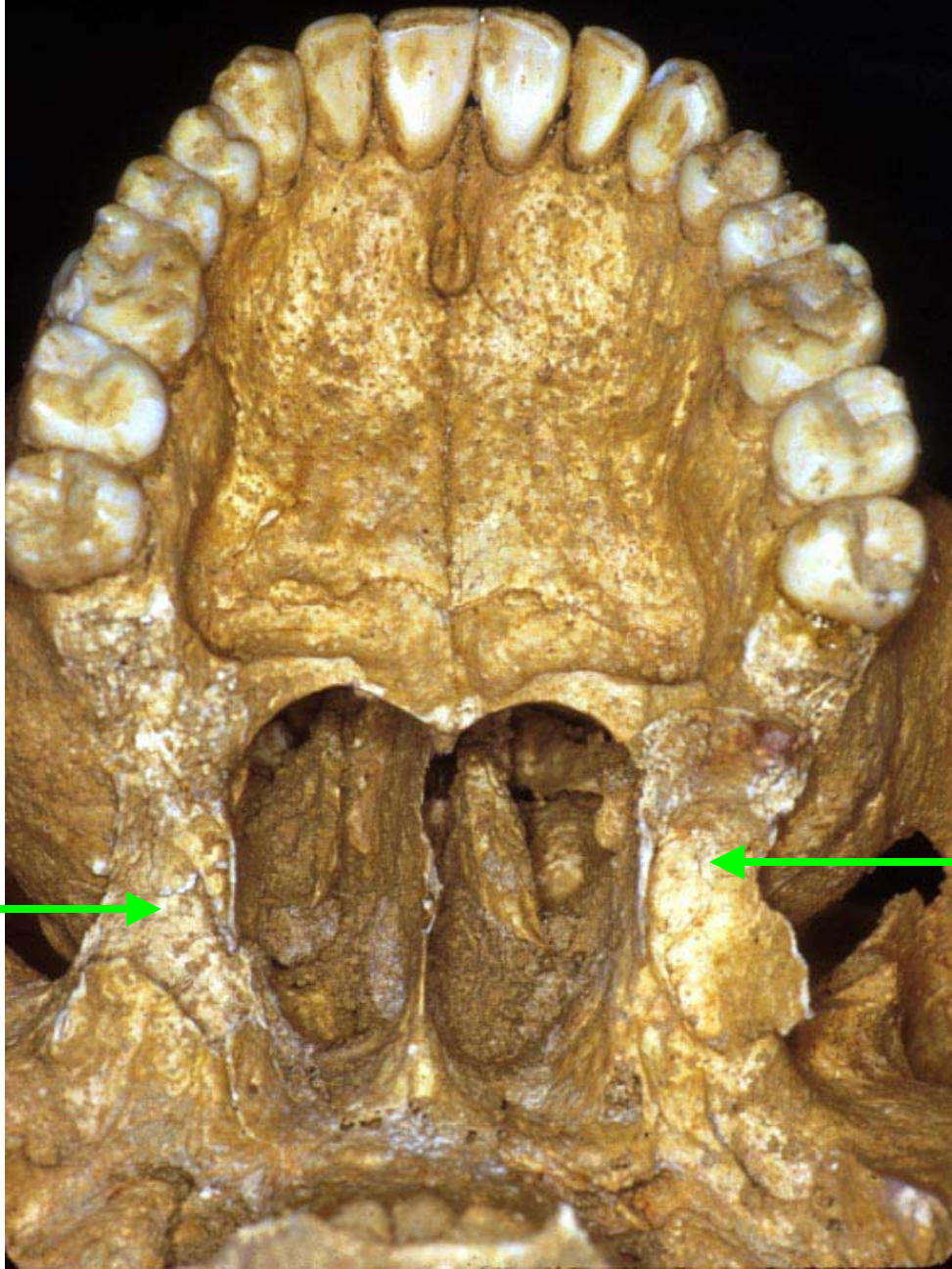


Ideal facial form and
occlusion of a prehistoric
skull at the Smithsonian.



E5 Close up of teeth of previous skull. Perfect occlusion and no decay.

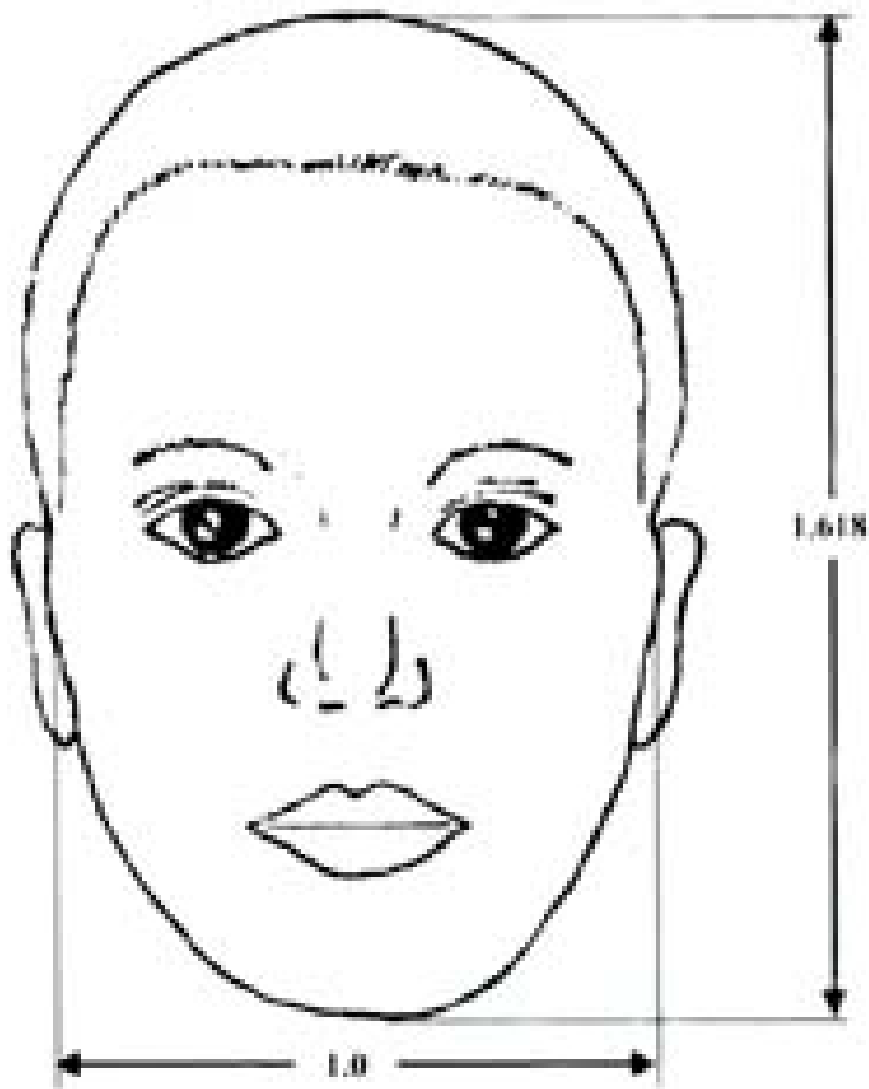
Same skull demonstrating a wide palate and large posterior nasal aperture. Note good width between the butterfly shaped pterygoid plates. This allows for a wide beginning of the airway.



Pterygoid plates



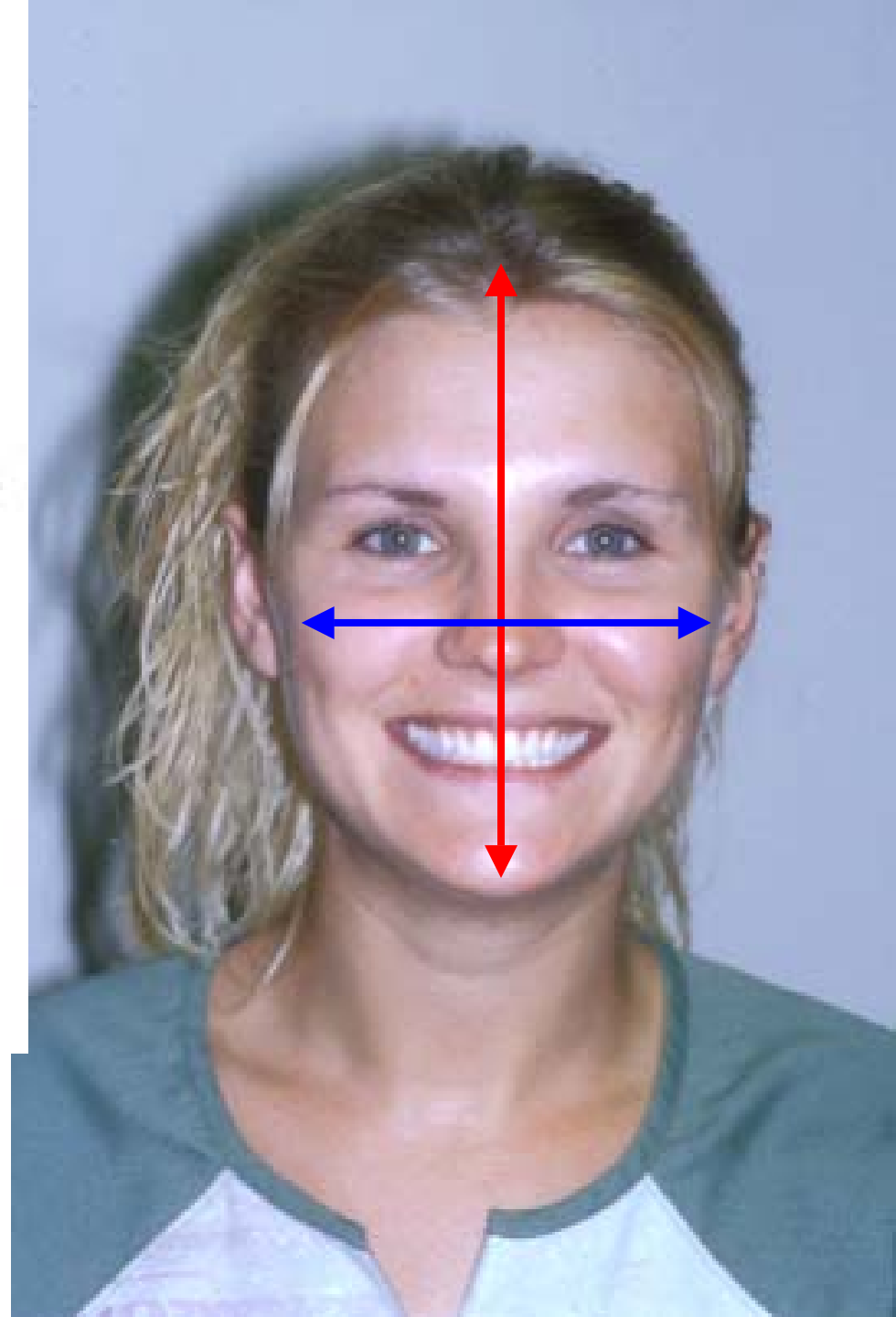
My assistant's well
proportioned beautiful
face and radiant smile.
She was breastfed.



Height = 227mm

Width = 143mm

Ratio = 1.59





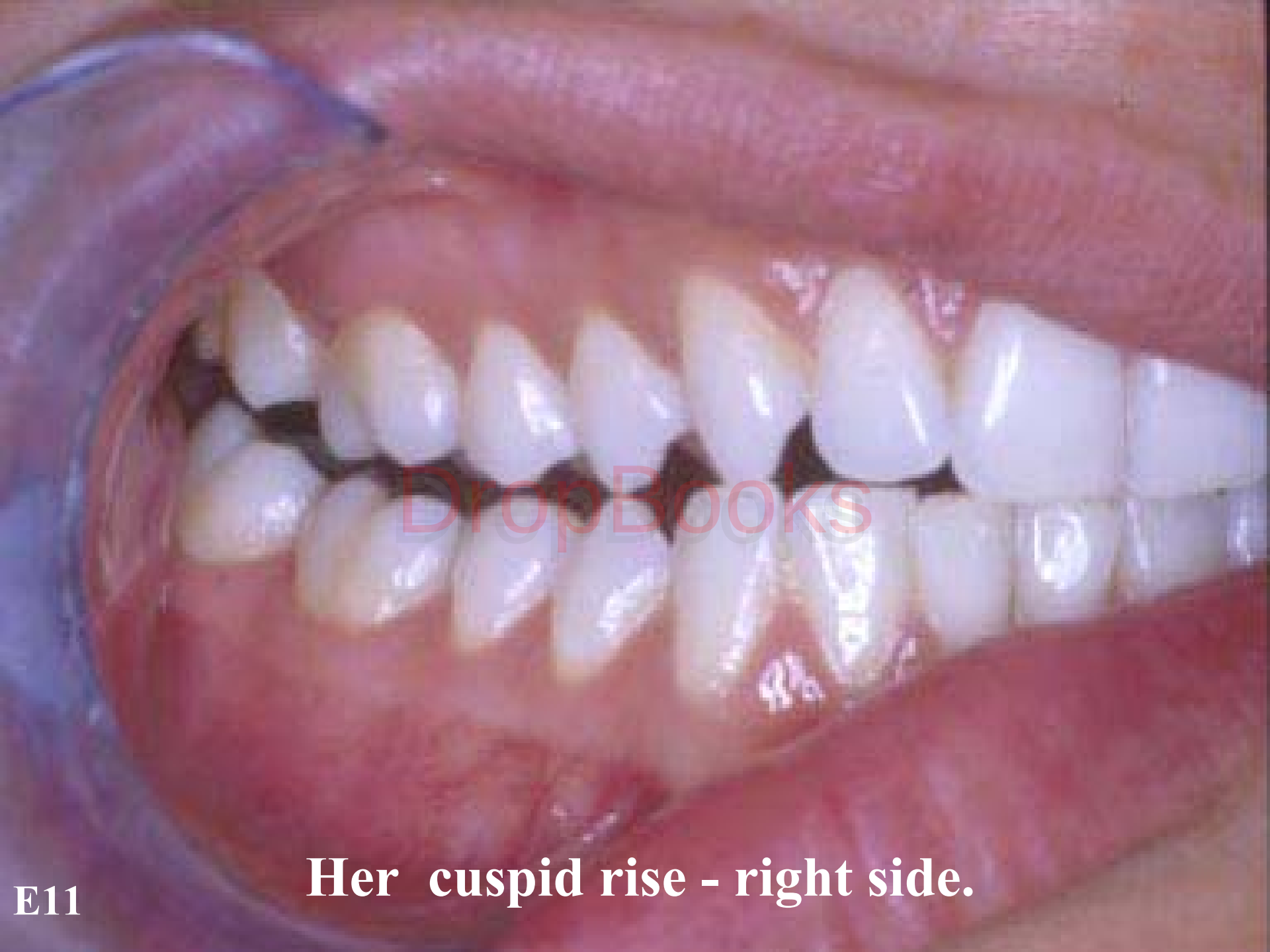
Her beautiful smile!

Mirror



E10

Class I - Right side. - Reflective view.



DropBooks

E11

Her cuspids rise - right side.



Her crossover - Anterior guidance.



Her Class I - left side. Reflective view.



Her cuspid rise - left side.



DropBooks

He crossover from other side.

E15

Both breastfed.

Both have well
proportioned faces.



E16



Her son has well
proportioned face and
winning smile.

Holding camera behind her soft palate.

E18

10/18/2004 9:10am



Intra-oral camera.



My view of monitor behind patient.

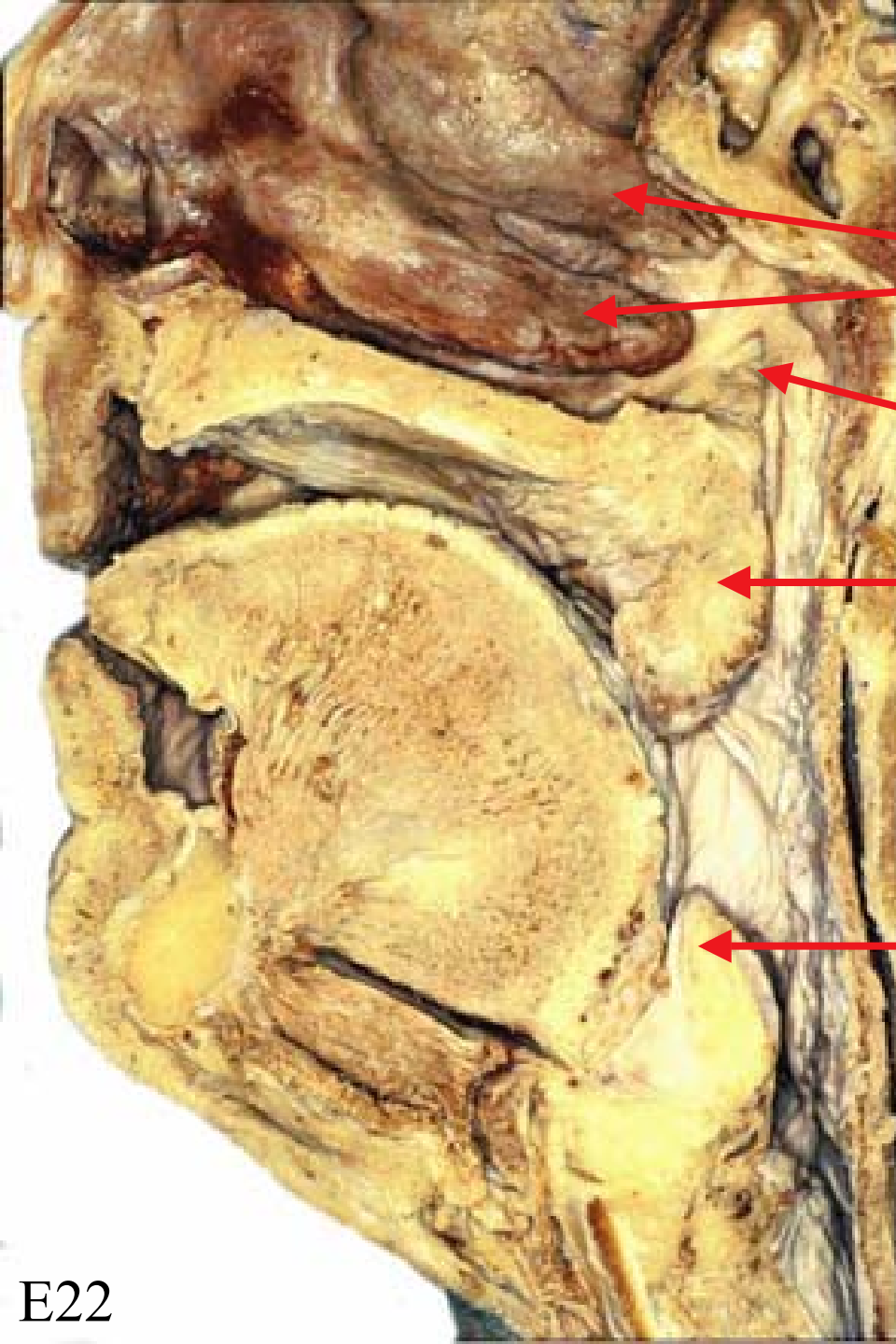
E20

10/18/2004 9:07am



10/18/2004 9:16am

E21 What patient sees.



Nasal septum removed

Turbinates

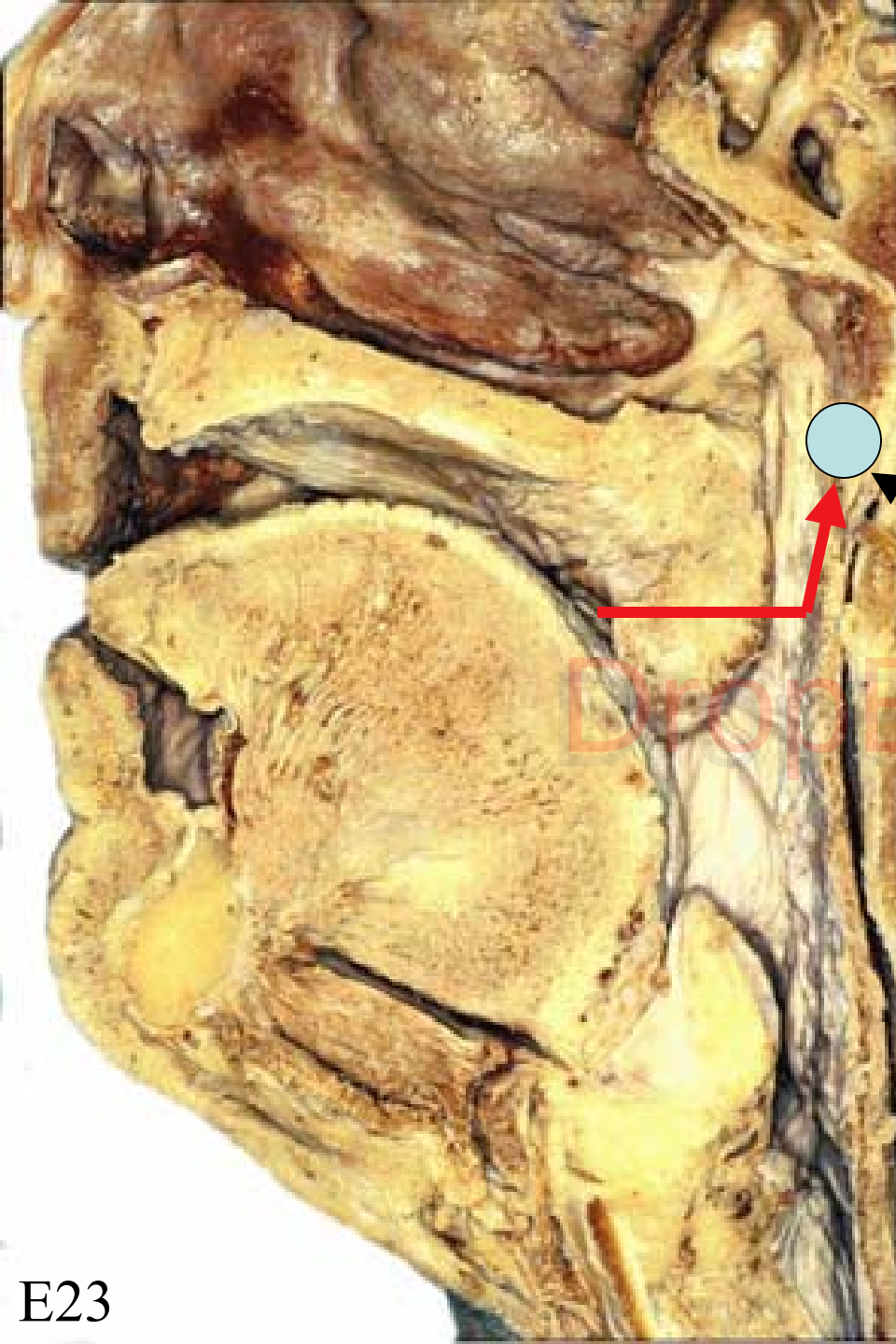
Auditory canal / Eustachian tube

Soft palate

Epiglottis

**Dissection illustrating
parts of nasopharynx.**

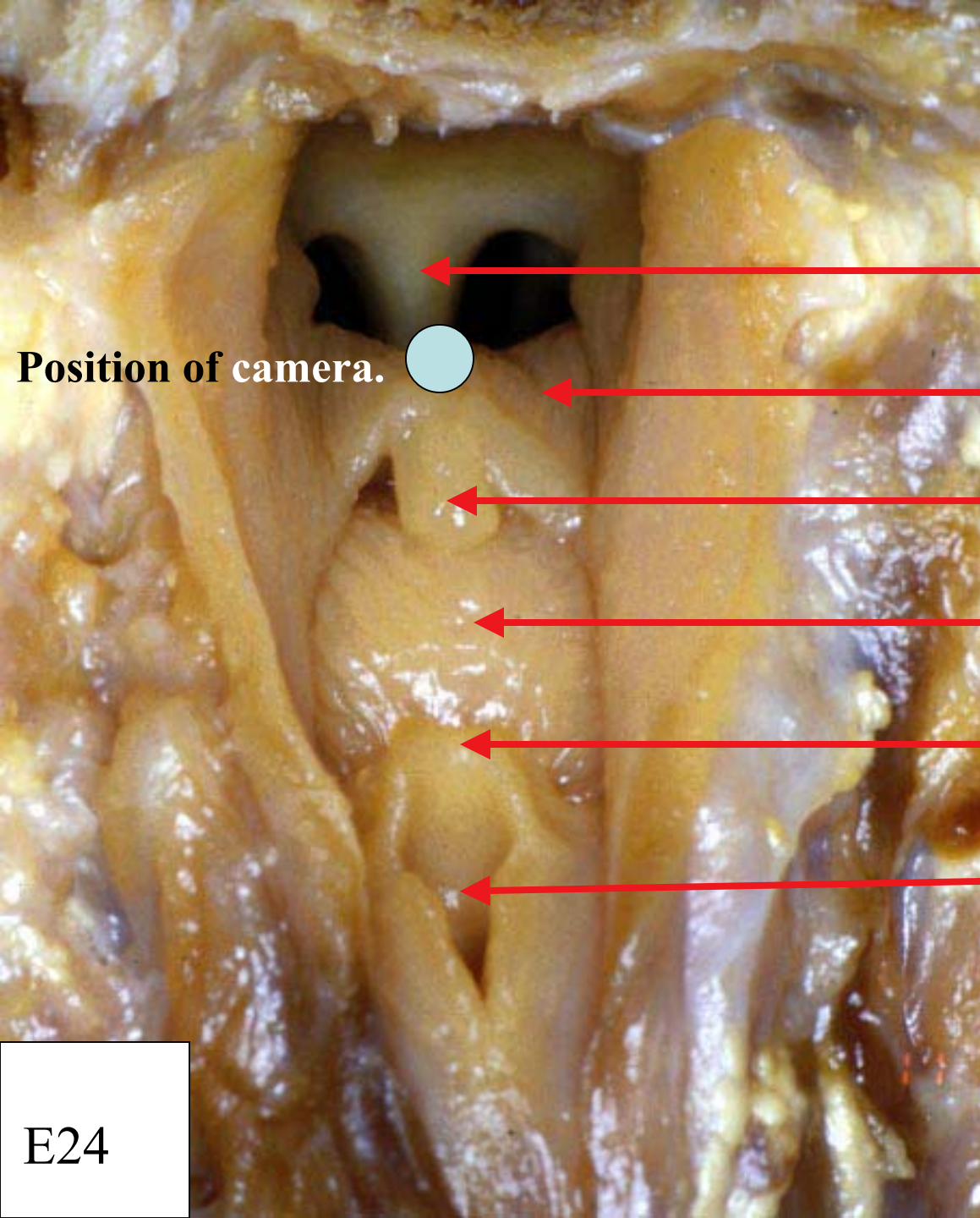
Camera sitting in area of circle.



E23

10/18/2004 9:07am

Interior dissection of the pharynx from behind.



Nasal septum

Soft palate

Uvula

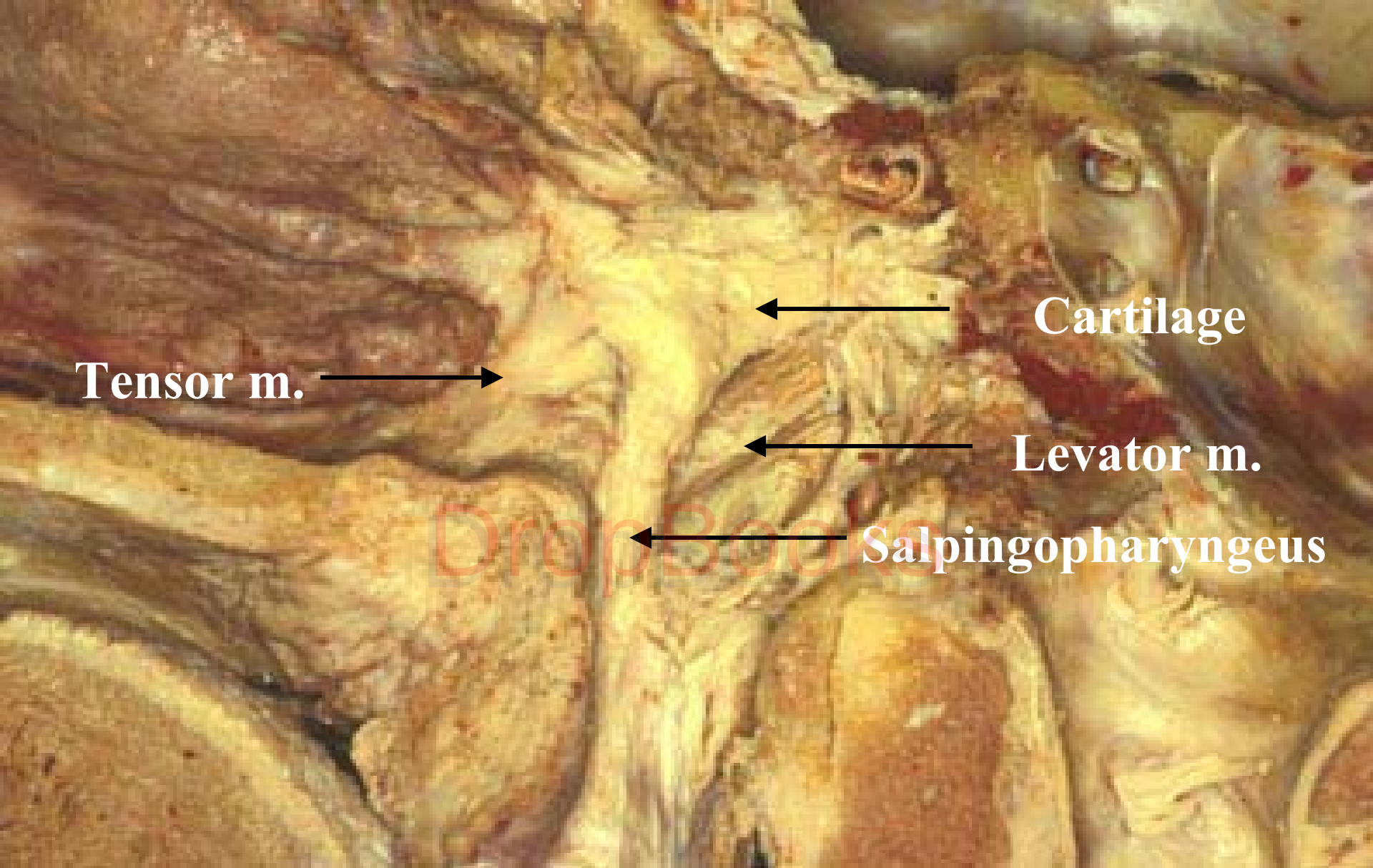
Tongue

Epiglottis

Inlet to larynx

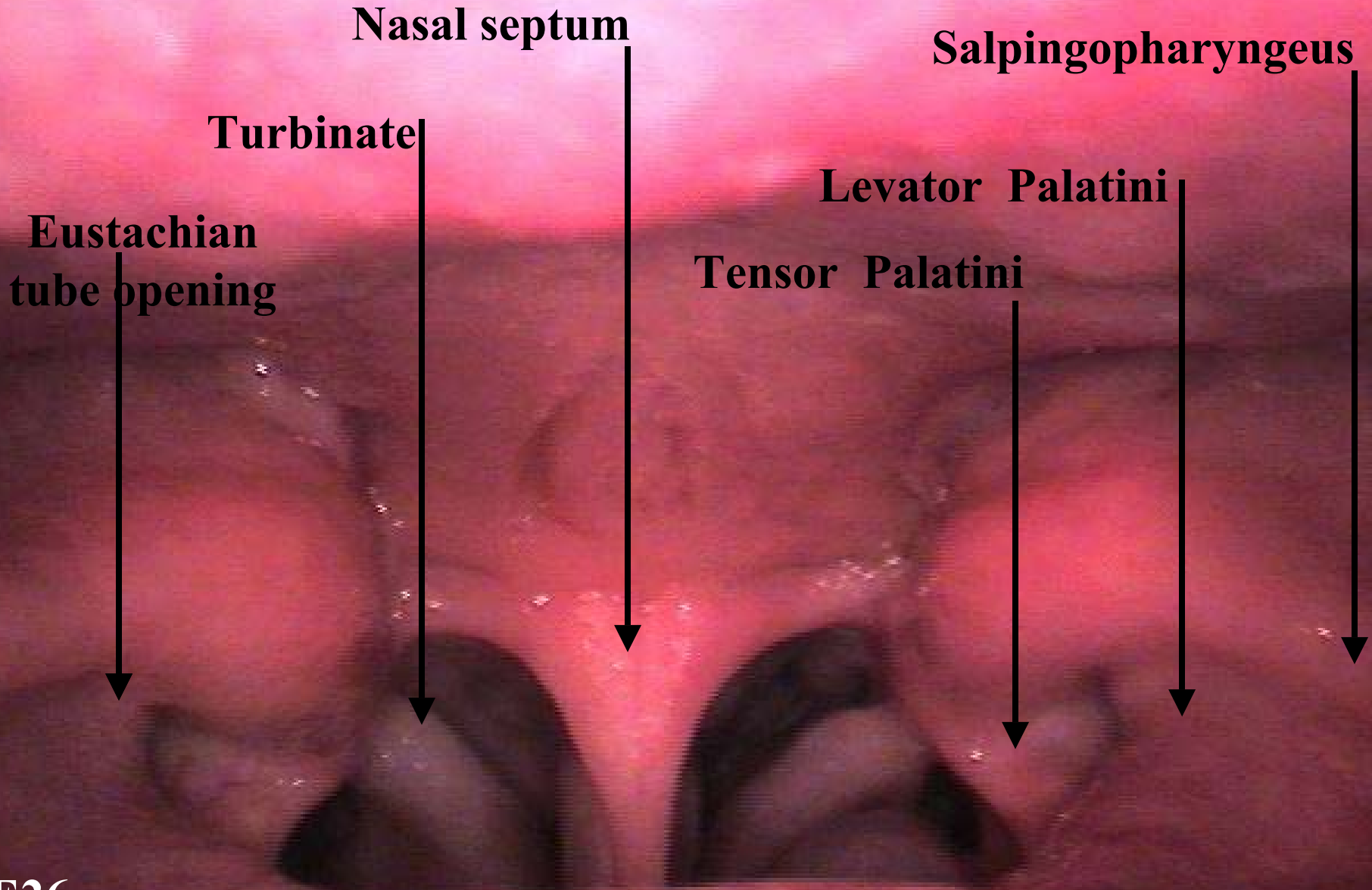
Position of camera.

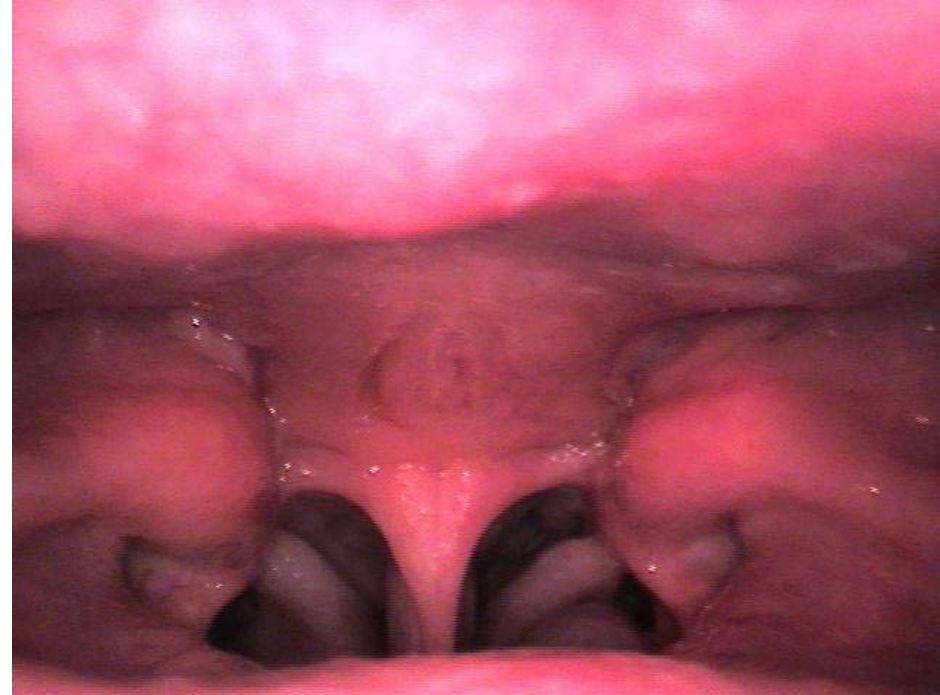
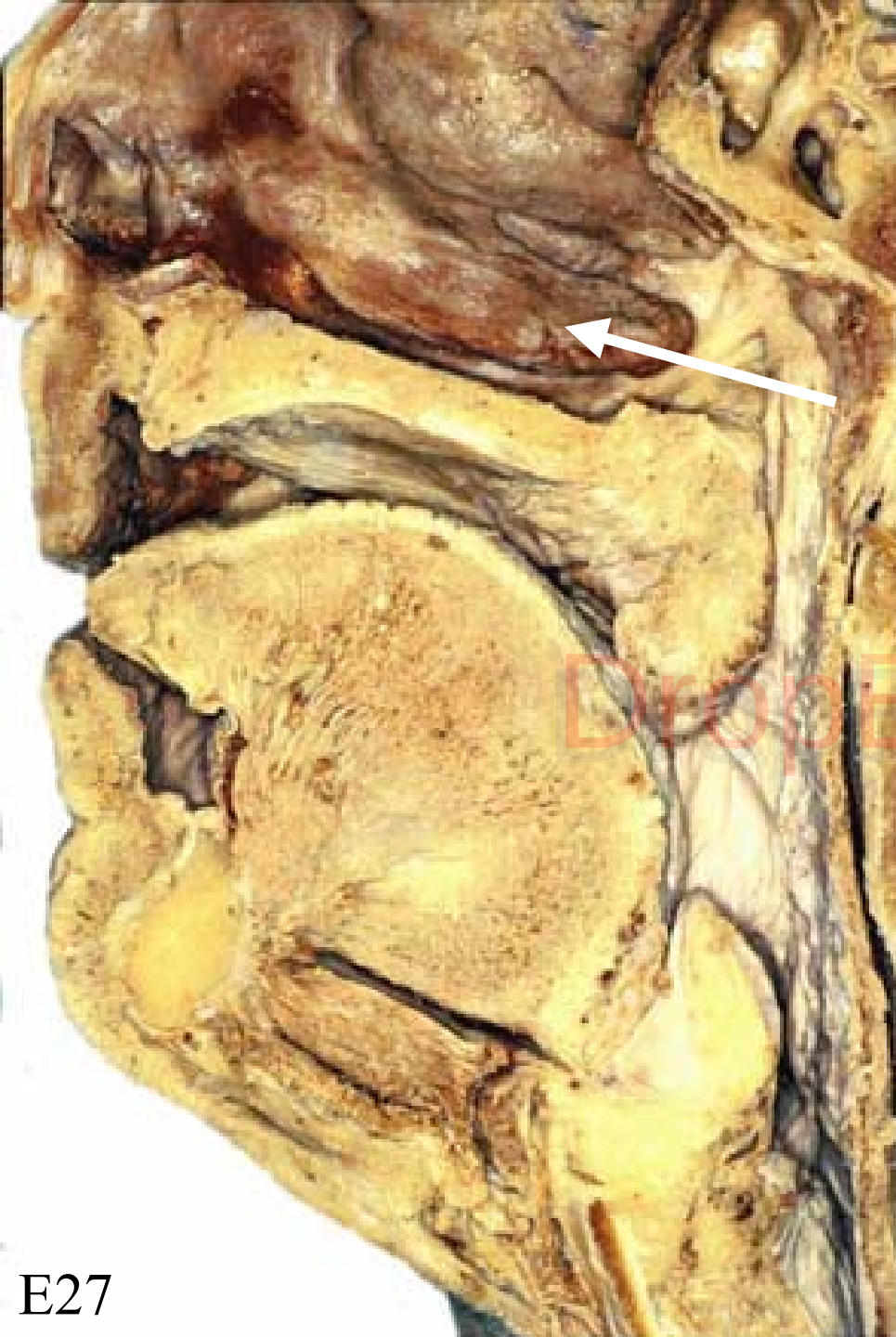




Close up view of Eustachian tube.

Assistant's nasopharynx.





E27

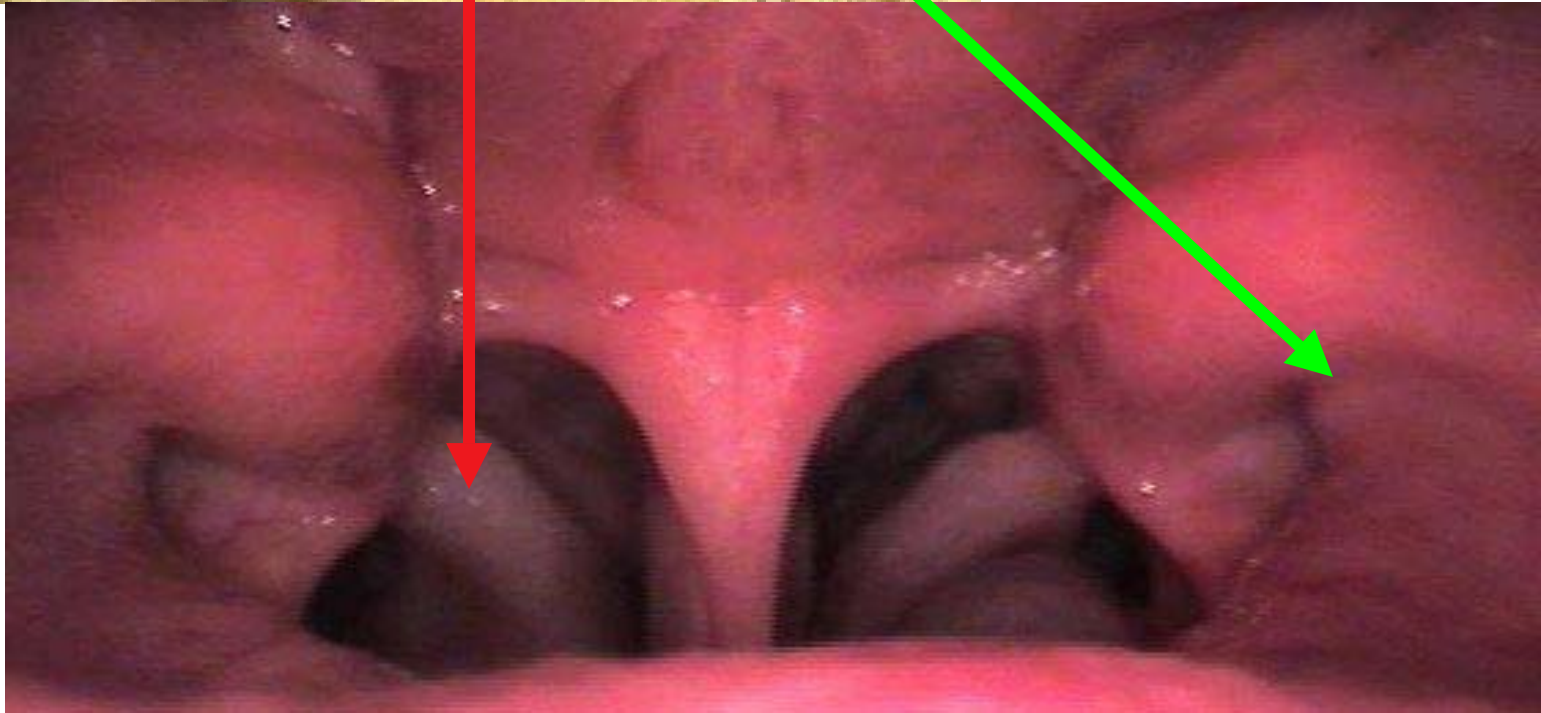
Arrow - direction of view.



**KEY
ILLUSTRATION**

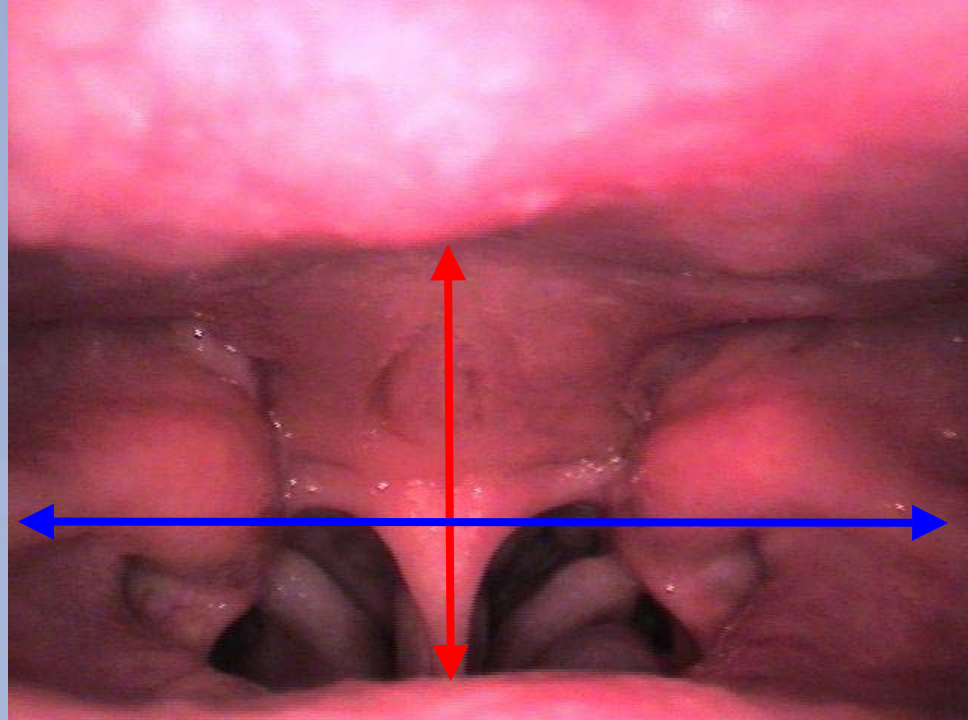
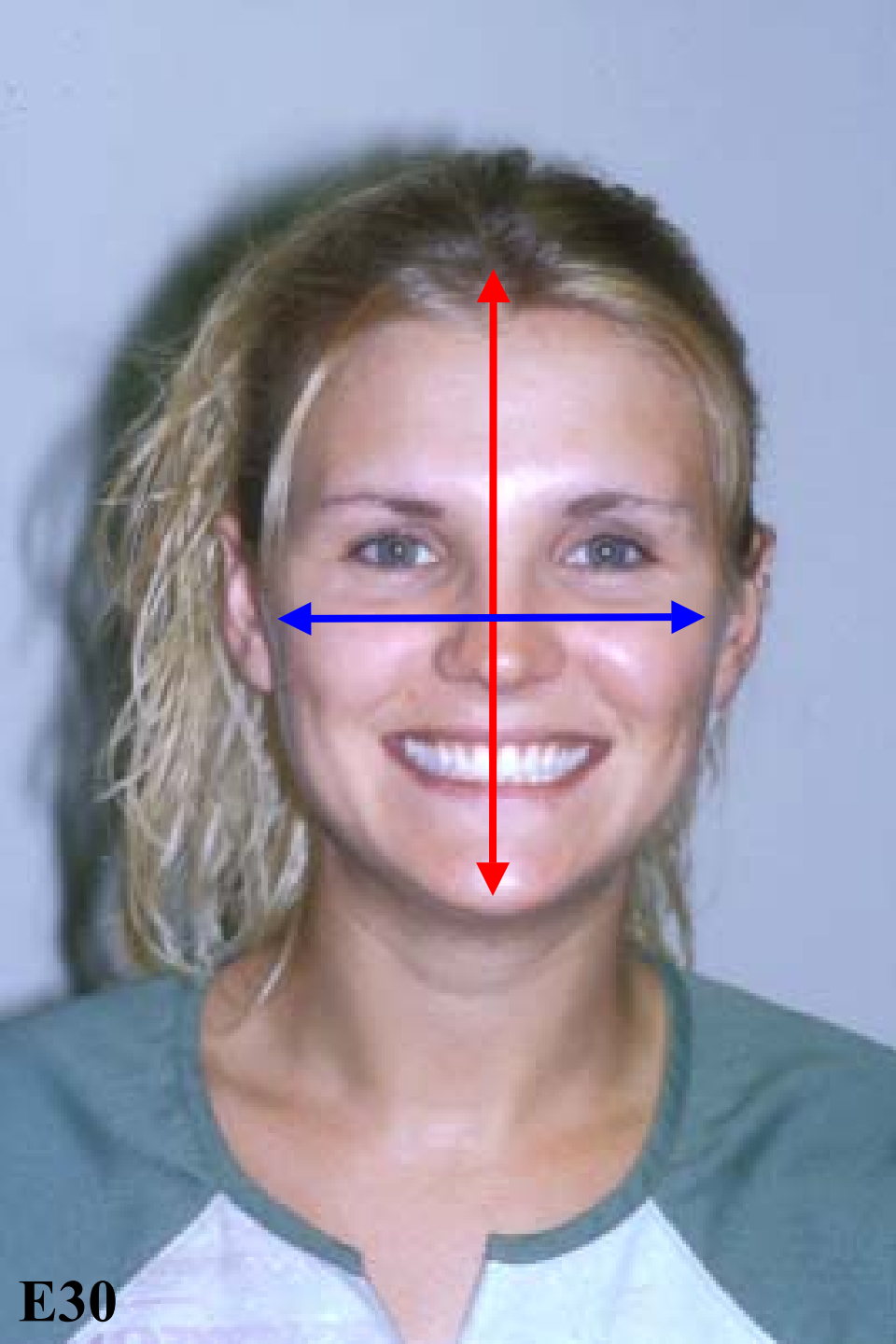
Turbinate.

**Eustachian
tube.**



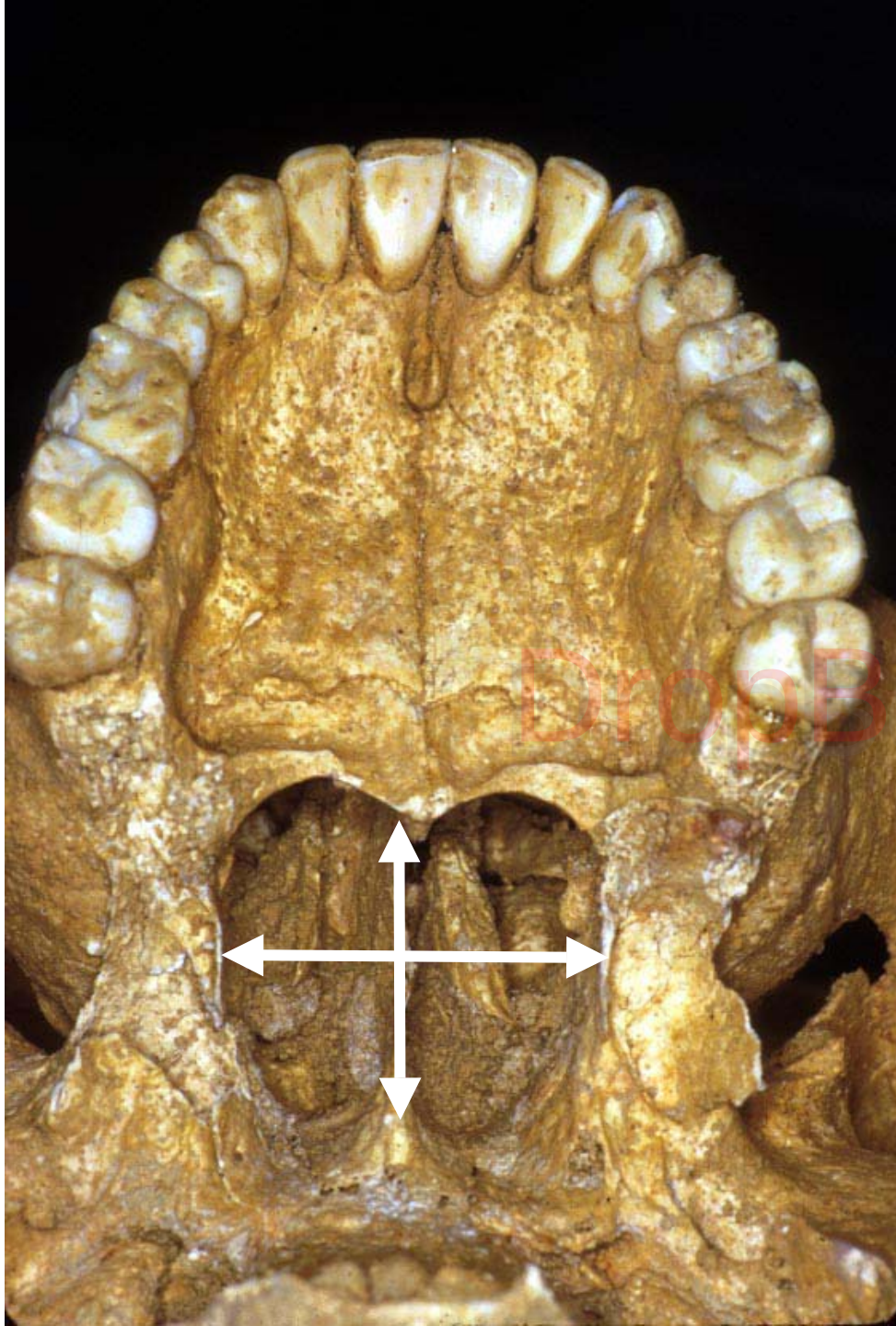
Muscles involved with the opening and closing of the Eustachian tube / Auditory canal

- **Lumen opens** chiefly when attachment of **tensor veli palatini muscle** pulls wall of tube laterally during swallow.
- **Auditory tube closes** by elastic recoil of cartilage, tissue turgidity and tension of salpingopharyngeus muscle.



**Is there a relationship
in this ratio?**

If there is, then there is a
relationship between facial
form and total health!

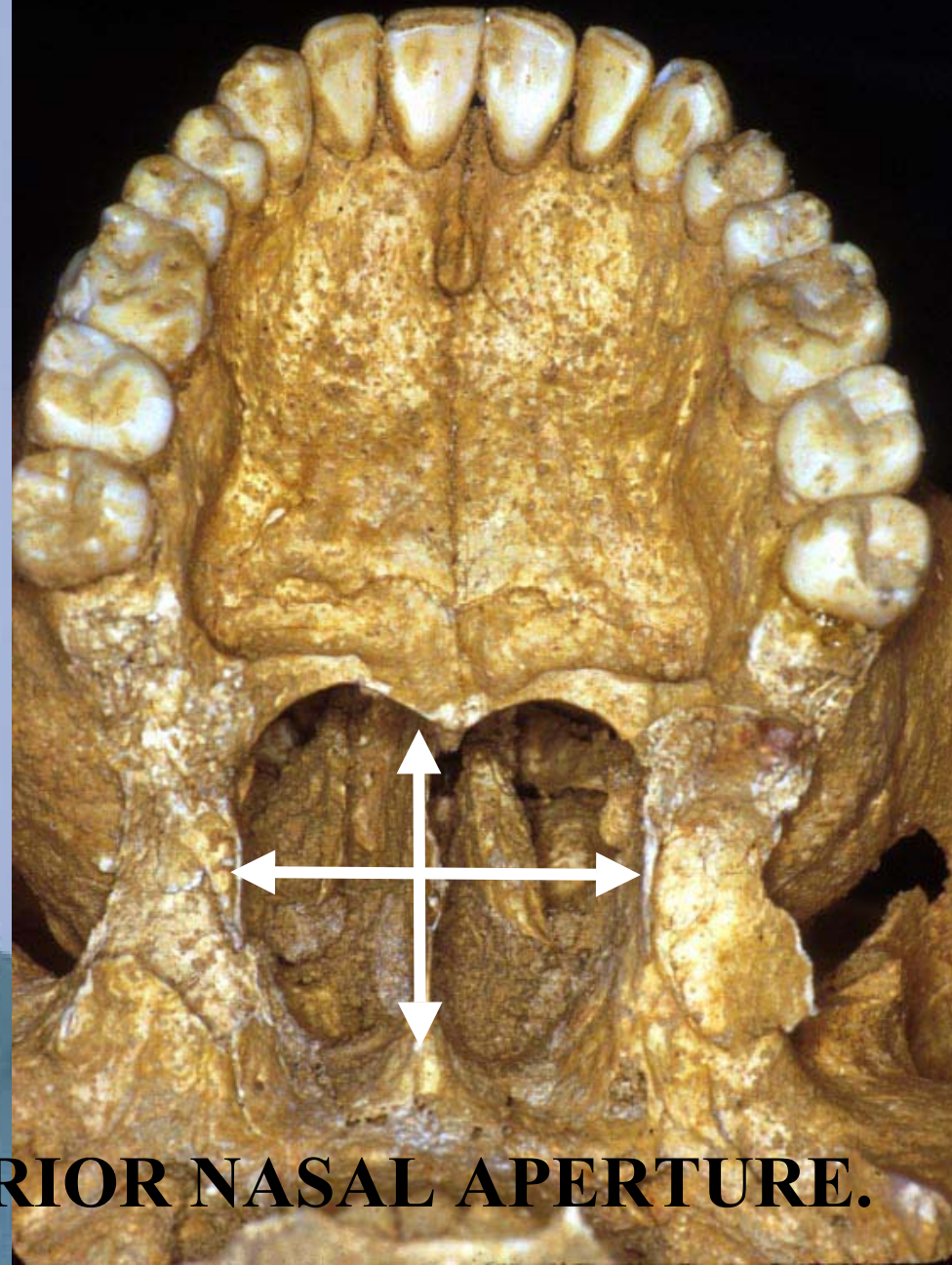
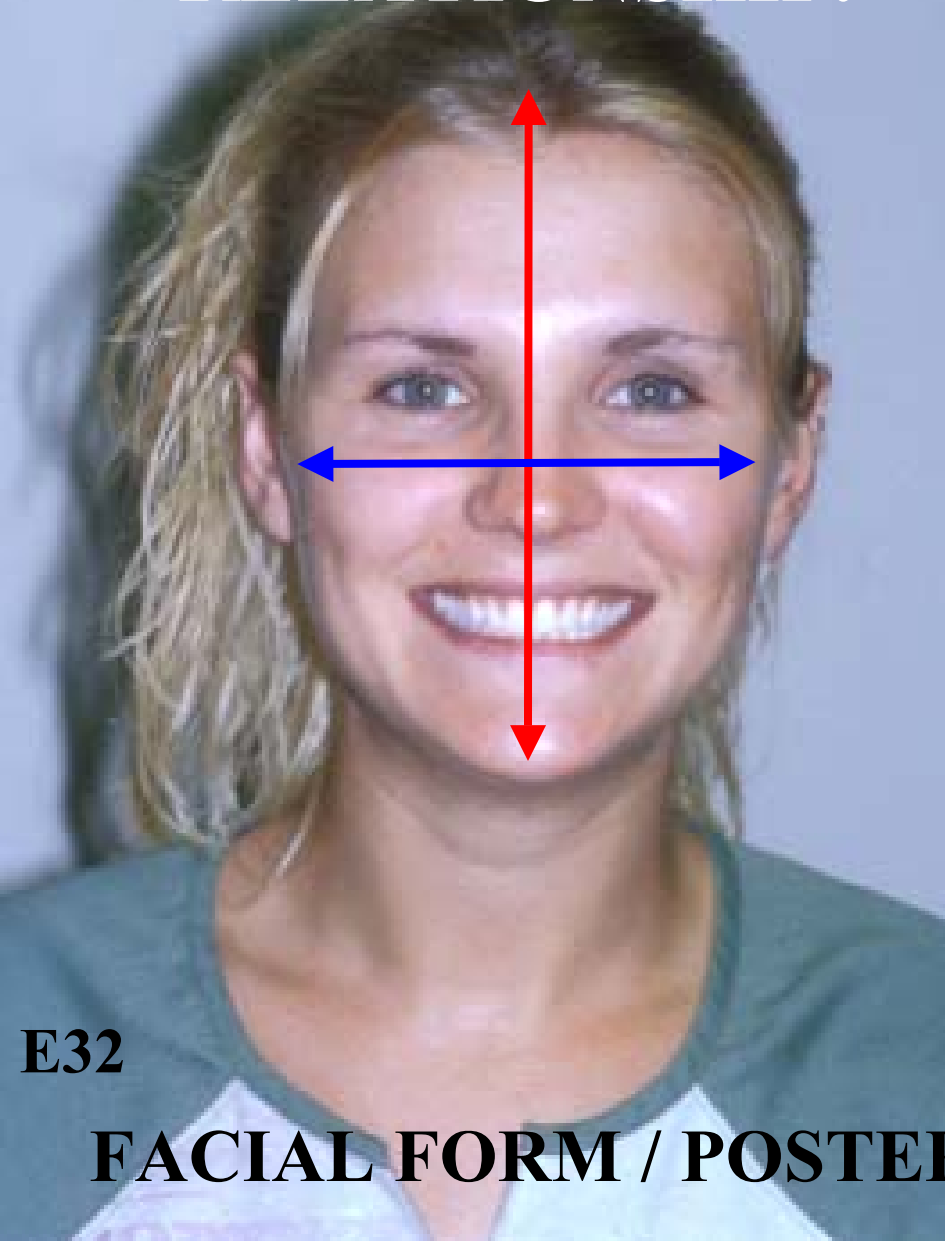


This is really the ratio that is most important to one's ability to breathe.

Can this ratio be related to facial form?

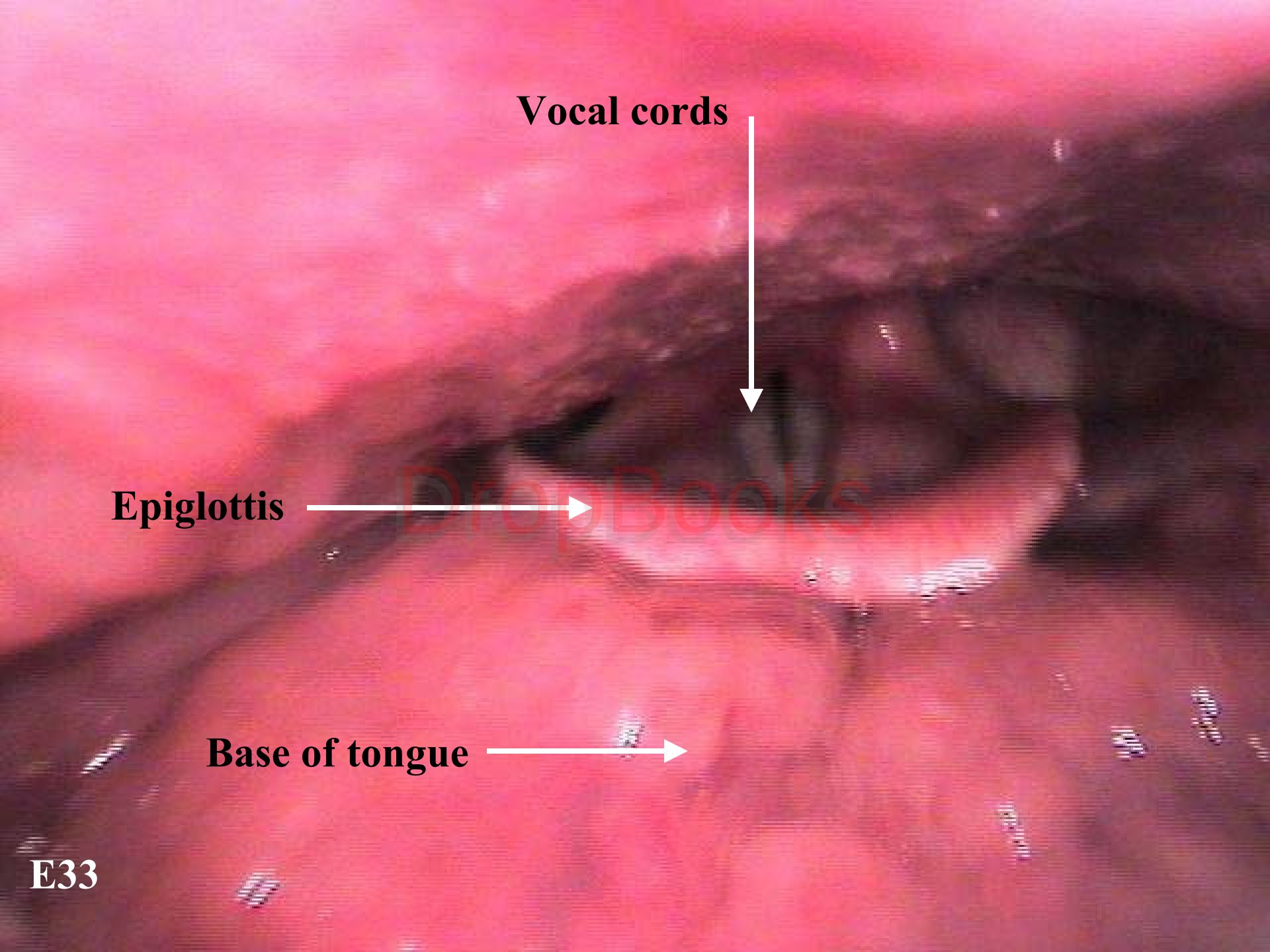
Prehistoric skull with wide palate and large posterior nasal aperture. There is also good width between the pterygoid plates. This allows for a wide beginning of the airway.

CRITICAL RATIO RELATIONSHIP.



E32

FACIAL FORM / POSTERIOR NASAL APERTURE.



Vocal cords

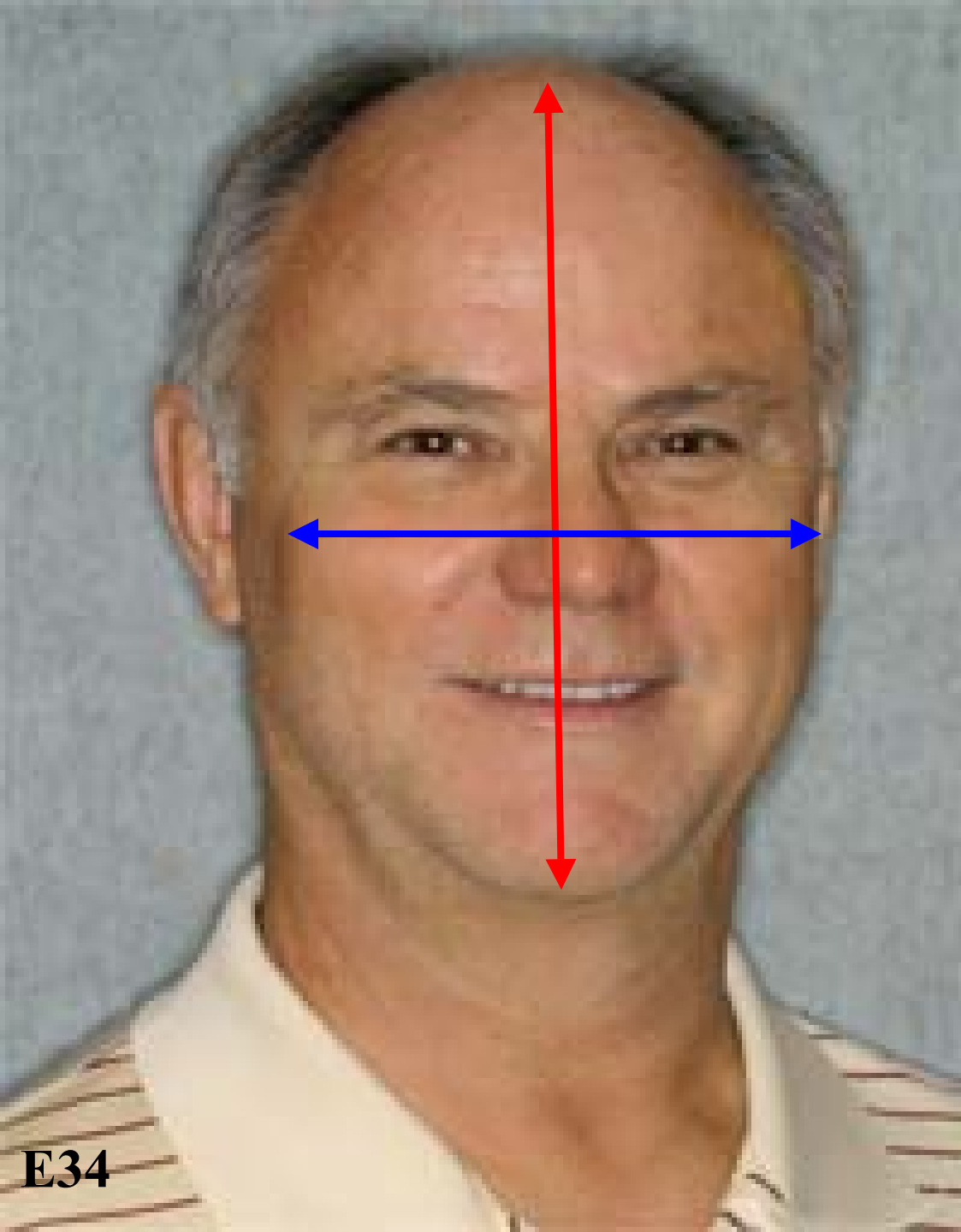


Epiglottis



Base of tongue





Breastfed.

Proportioned face,
but gray and balding.

Height = 217mm

Width = 135mm

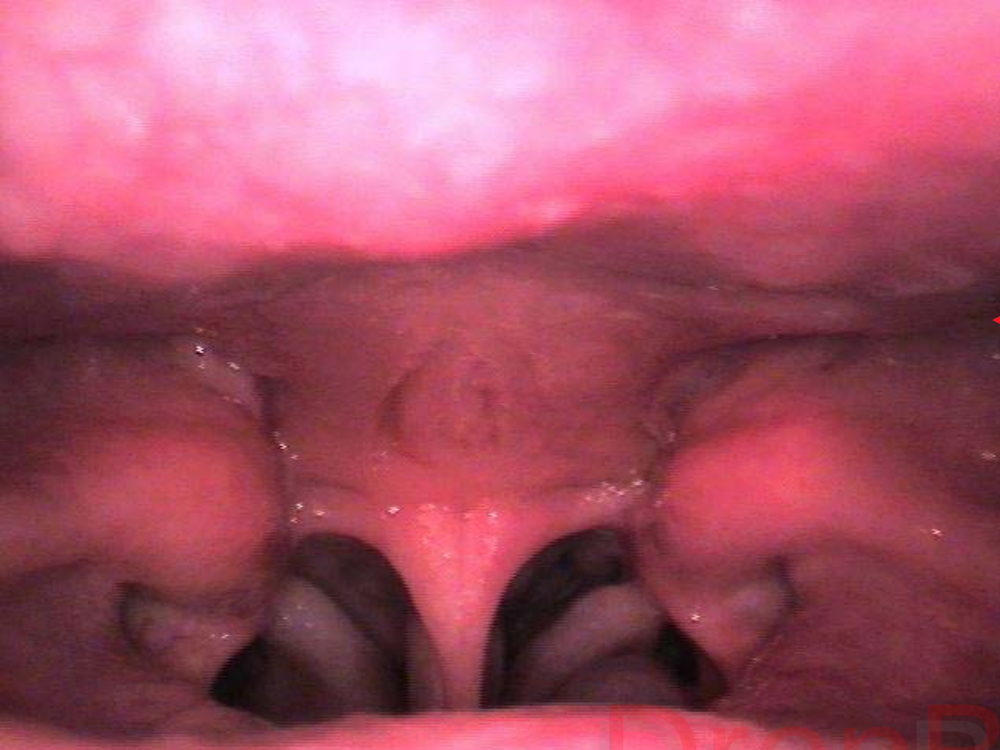
Ratio = 1.607

My nasopharynx.

DropBooks



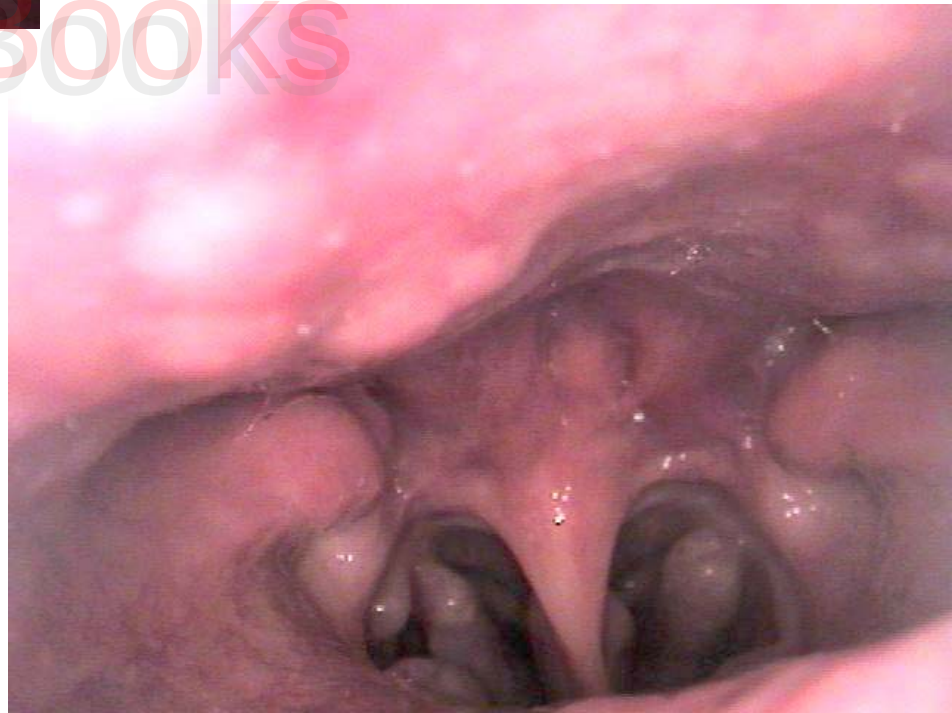
Does a
proportioned face
normally have a
good
nasopharynx?



Assistant's
nasopharynx



DropBooks



My nasopharynx



Factors Predisposing Bottle-fed Infants to Otitis Media

- Lack of IgA immunity from human breastmilk.
- Bottles propped - infant on back - regurgitates into Eustachian tubes (ETs).

Ruth Lawrence, 1980, “Breast-feeding, a guide for the medical profession.”

I add the following factors:

- Confinement of the space in the area of the ETs due to the displacement of soft palate during bottle feeding.
- Altered ability of the tensor palatini to fire properly.

Long face syndrome

DropBooks



Long face syndrome.

He was a preemie
and was bottle-fed.

Same age as
my assistant.



E41 Anterior open bite and tongue thrust.



Close-up of open bite.



Close-up of tongue thrust.



Right side occlusion.

E44



E45

Left side occlusion.



Narrow maxillary arch.

E46

Slightly high palate.

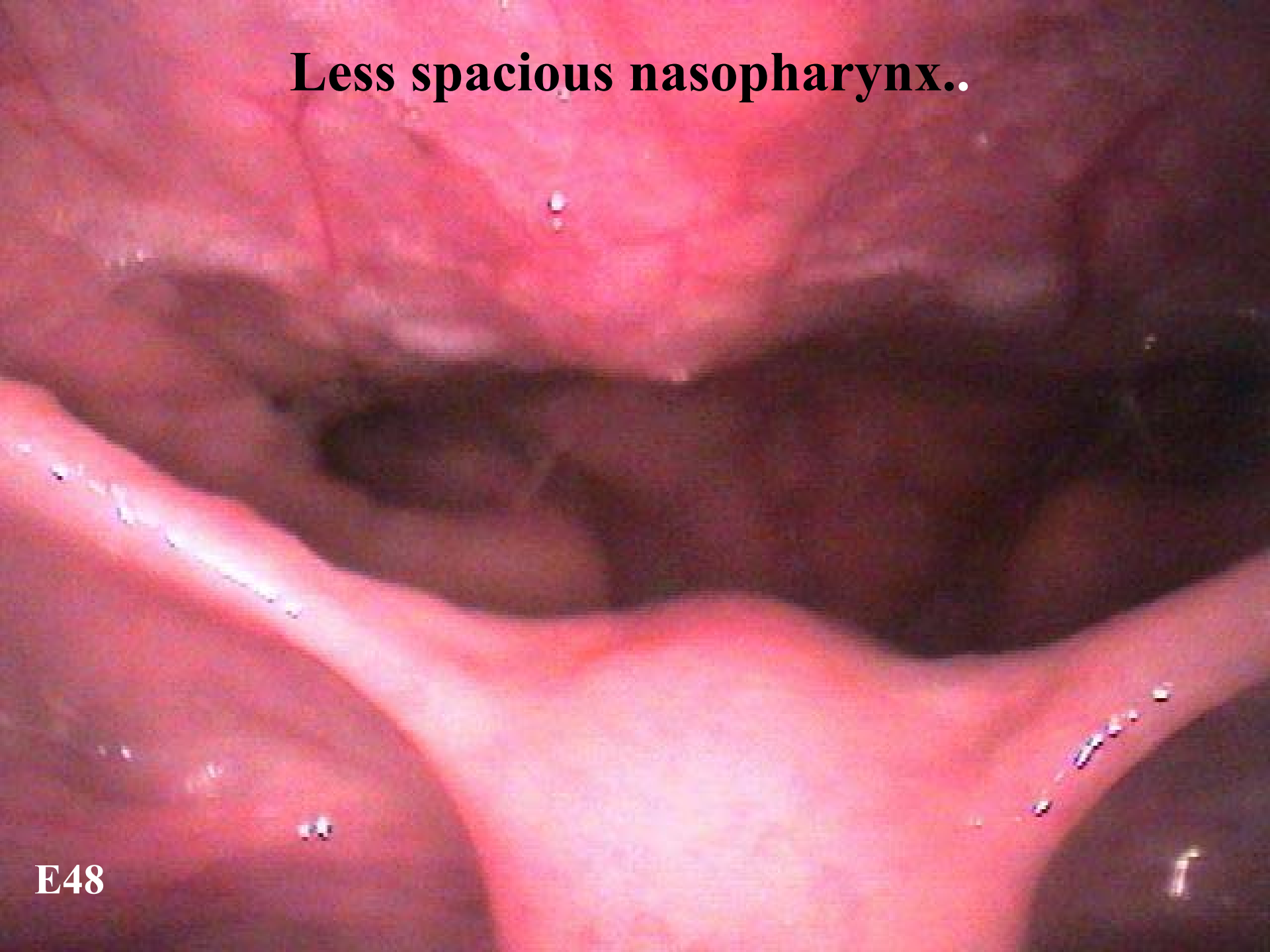


Narrow mandibular arch.

This clinical photograph shows the interior of a patient's mouth with the tongue retracted. The lower dental arch is noticeably narrower than the upper arch, with the teeth appearing crowded. The text 'DropBooks' is overlaid in a large, semi-transparent red font across the center of the image.

DropBooks

Less spacious nasopharynx..



E48

Another view of his nasopharynx.

DropBooks

Nasopharynx closed / collapsed.

E50



Spacious.

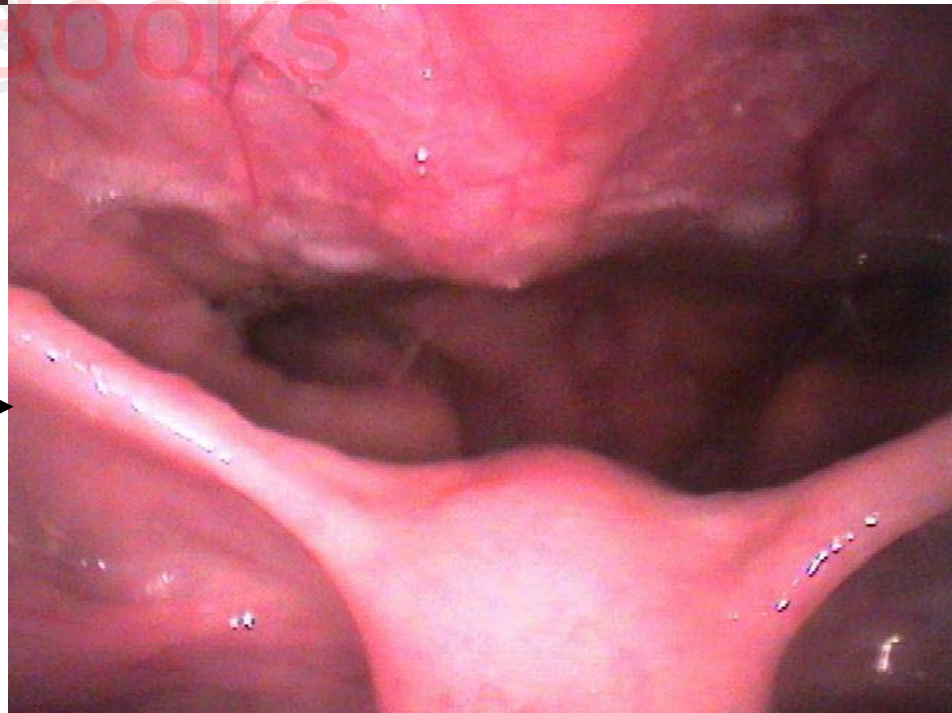
Nasopharynx of person
who was breastfed.

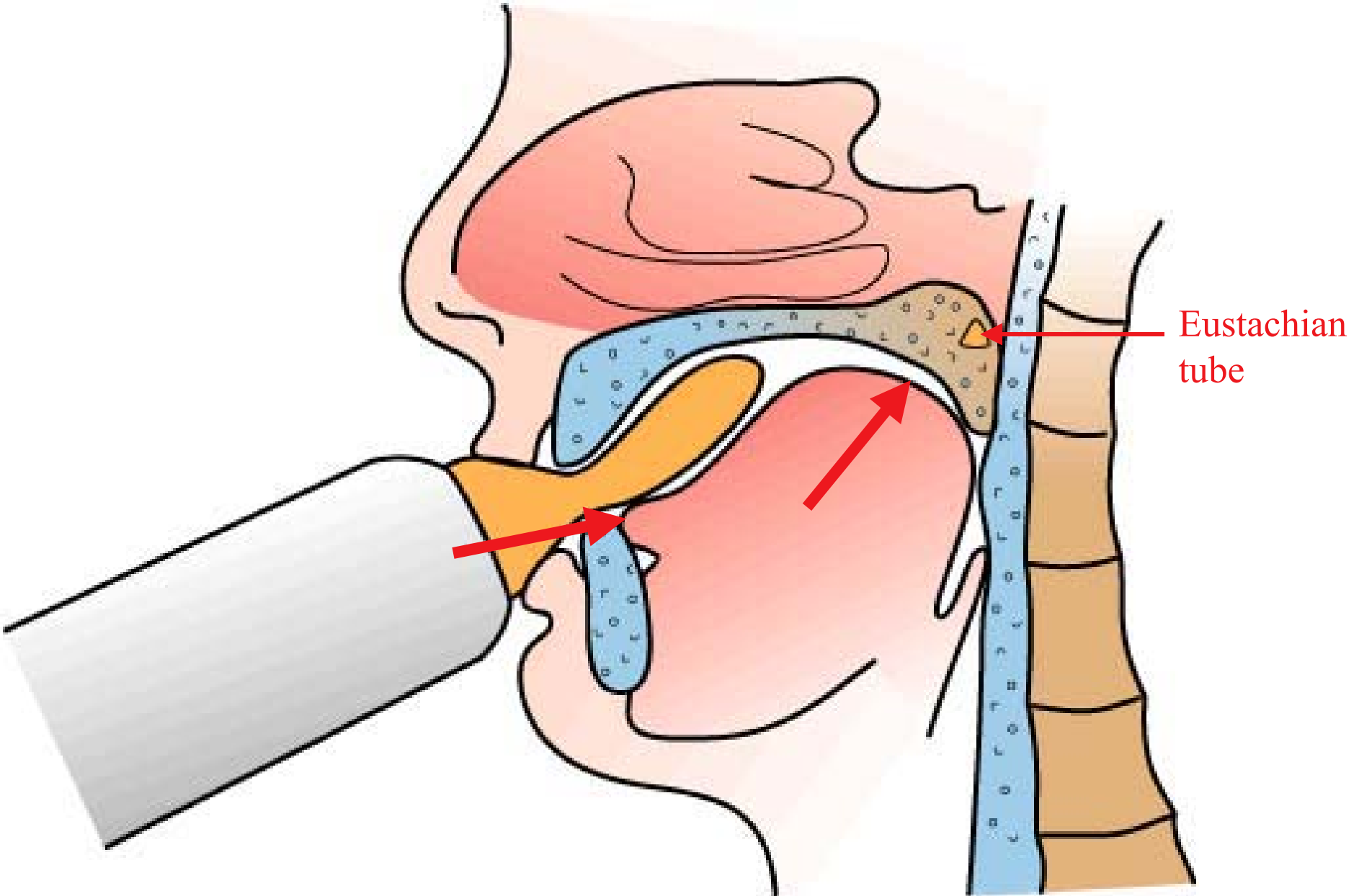


DropBooks

Confining - Limiting.

Nasopharynx of person
who was bottle-fed.





Bottle feeding forces tongue back. This elevates tongue at back, which in turn can block off Eustachian tubes.

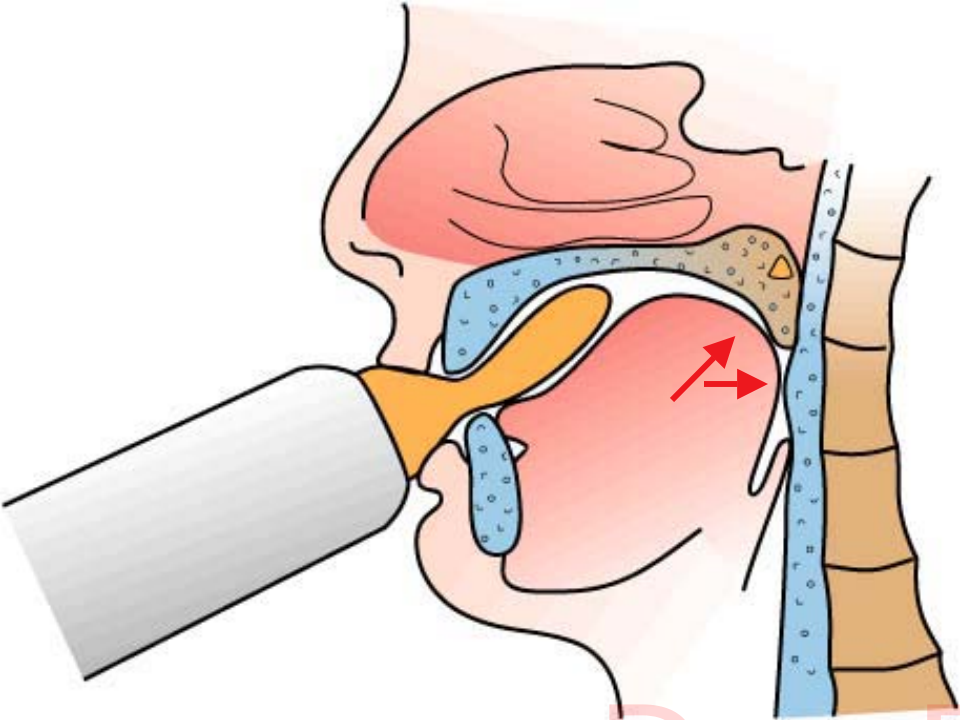


Illustration of how bottle feeding can drive the tongue up and back causing constriction of nasopharynx and oropharynx.

Is this the effect bottle feeding has on the nasopharynx?

DropBooks





Adult who was breastfed as
a child. She would not
touch a bottle or pacifier.
A pretty proportioned face.



Same adult with
beautiful smile and
teeth. Never had
orthodontics (braces).



DropBooks



Lip contour of 4 month
old breastfed infant

Same infant at 4 1/2 years.
Note natural lip line





Aggressive thumb
sucker at 4 months.

Lip contour and tongue
position of same
aggressive thumb
sucker when thumb
removed. (4 months)



DropBooks



Same patient at 4 1/2 years of age. Note lip contour and forward position of tongue at rest.



Lips at rest.

← Breastfed

Both age 4 1/2 years.

DropBooks

Bottle fed & heavy
thumb sucker.





Same patient at age 7 years.
Note long face and open mouth
in resting position.



Open bite on same 7 year old. Note forward position of tongue.

Now age 9 in these pictures.

Compromised oropharynx (throat) of same 7 year old.



DropBooks



E62 Same patient at age 9. Having ortho expansion.



E63 Age 9. In treatment for palatal expansion.



E64 Age 9. Expander in mouth.



E65

Age 9. Expander out of mouth.



Age 11. After
expansion phase.
Face is a little wider
now. Open bite not
visible with straight
on view.



Age 11. In ortho.



During expansion phase.



During straightening phase.





Age 11. Inferior view of anterior occlusion. Still has open bite.



Still has tongue thrust - has not
had myofunctional therapy yet.

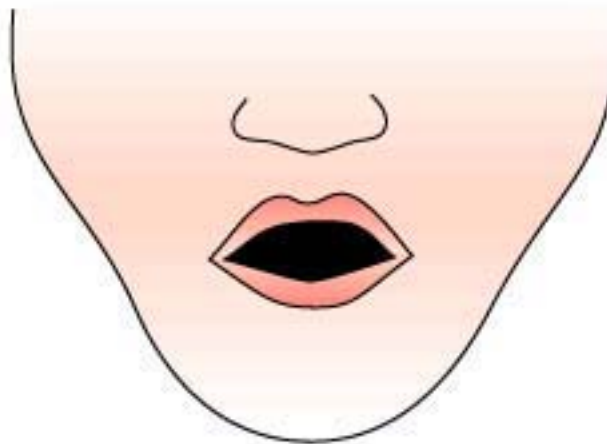


Age 11. Face is a little wider since expansion of palate during ortho.

Lip and Facial Contours



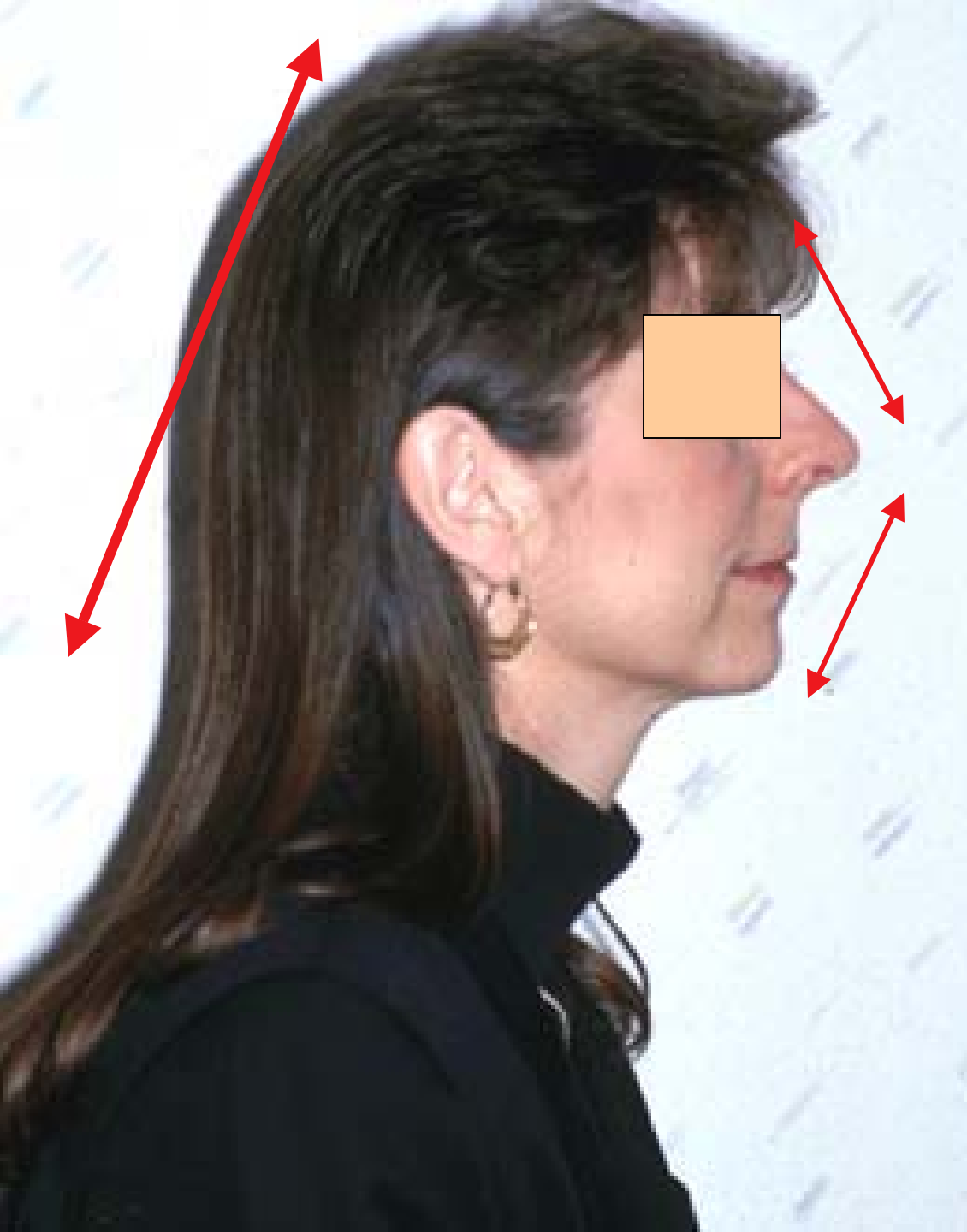
Infant exclusively breastfed



Infant who has sucked on a foreign object **excessively**



Adult with sleep apnea.
Also has long face.



Typical forward angulation of head of a person with Long Face Syndrome. Forward angulation of the head makes it easier to breathe - ie - like in CPR

Many long faced individuals have a prominent nose.



E75 She has compromised oropharynx and battered throat (redness) from snoring.



E76 Throat of a healthy 90 year old gentleman.

Get your rulers out
and go measure!

DropBooks

Brian Palmer, DDS
Leawood, Kansas
December 2004.